



Department of Energy

Washington, DC 20585

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MEMORANDUM FOR THE SECRETARY

THROUGH:

T. J. GLAUTHIER
DEPUTY SECRETARY

ERNEST J. MONIZ
UNDER SECRETARY

FROM:

for IVAN ITKIN, DIRECTOR *Christine M. Hunkeler*
OFFICE OF CIVILIAN RADIOACTIVE
WASTE MANAGEMENT

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ASSISTANT SECRETARY FOR
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Carolyn L. Huntoon
1/12/01

SUBJECT:

ACTION: Establish a Policy that the Department of Energy (DOE) will retain its current inventory of contaminated nickel pending the Nuclear Regulatory Commission (NRC) decision regarding the construction of a Yucca Mountain repository or demonstration of an alternative, cost effective reuse/recycle option.

BACKGROUND:

On January 12, 2000, the Secretary placed a moratorium on the unrestricted release of DOE volumetrically contaminated metals, largely in response to concerns over the planned release of processed, decontaminated nickel from the decommissioning of the shut down gaseous diffusion plant (GDP) at Oak Ridge, Tennessee. Subsequently, a July 13, 2000, Secretarial Memorandum to Heads of Departmental Elements regarding the Release of Surplus and Scrap Materials described a comprehensive approach for DOE management of surplus and scrap materials. This approach reflected input from the Secretary's Re-Use and Recycling Task Force. In support of the new emphasis on internal reuse, EM conducted a data call to determine the inventory of DOE-owned surplus steel and nickel. The data call also identified the potential nickel requirements of the Office of Civilian Radioactive Waste Management (RW) to construct the potential Yucca Mountain repository, if ultimately licensed by the NRC.



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DISCUSSION:

The July 13, 2000, Secretarial Memorandum directed the "expansion of efforts to promote reuse and recycling within the complex of DOE facilities." Due to the importance of corrosion-resistant materials to the possible Yucca Mountain repository, the use of radiologically impacted nickel in the potential repository represents a consistent implementation of Secretarial policy.

The results of the EM data call indicate that DOE's current inventory of potentially recoverable contaminated nickel is between 27,000 tons and 38,000 tons. The actual quantity available for reuse would vary depending on the processing technology chosen. Attachment 1 presents details regarding the current location and quantities of this contaminated nickel. If Yucca Mountain is licensed by the NRC for development as a repository, RW has estimated a demand for nickel which would exceed the DOE-owned potential supply. Attachment 2 presents details regarding the product specifications for nickel potentially required for repository waste packages and emplacement pallets.

Various disposition options are available for the surplus nickel, including continued storage, reuse, or disposal. While reuse of the nickel in the repository appears attractive, the feasibility and costs associated with safe and technically compliant preparation of the nickel for this use have not been assessed. Processing and interim restricted (e.g., industrial reuse) options have been identified that are consistent with the aforementioned Secretarial intent. If proven feasible, execution of these options would secure the preparation of the nickel at no cost to DOE as well as provide jobs to displaced workers in the GDP host communities. Further, execution of this option ensures responsible management of expenditures from the Nuclear Waste Fund because the nickel could be provided at a cost to RW guaranteed not to exceed the cost of procurement from external vendors.

SENSITIVITIES:

DOE-owned contaminated nickel has been portrayed as a potential surplus asset (e.g., sale of nickel from Oak Ridge was intended to help finance decontamination and decommissioning of the East Tennessee Technology

Park; the Paducah Area Community Reuse Organization and the local Site-Specific Advisory Board are both interested in proceeds from the nickel benefitting their interests). Also, because of public perception, future release of radioactively contaminated nickel for commercial recycling has been very controversial. However, no objections have been raised associated with the potential restricted, industrial use of processed DOE nickel.

POLICY IMPACT: As discussed above, reuse of DOE-owned contaminated nickel at an NRC-approved Yucca Mountain repository would represent a consistent fit with the policy established in the July 13, 2000, Secretarial Memorandum on the Release of Surplus and Scrap Materials.

RECOMMENDATION: Direct EM to retain its excess inventory of contaminated nickel while investigating the potential RW use at the Yucca Mountain repository, as well as other disposal and recycle/reuse alternatives.

Approved: _____



Disapproved: _____

Date: _____

01/19/01

2 Attachments